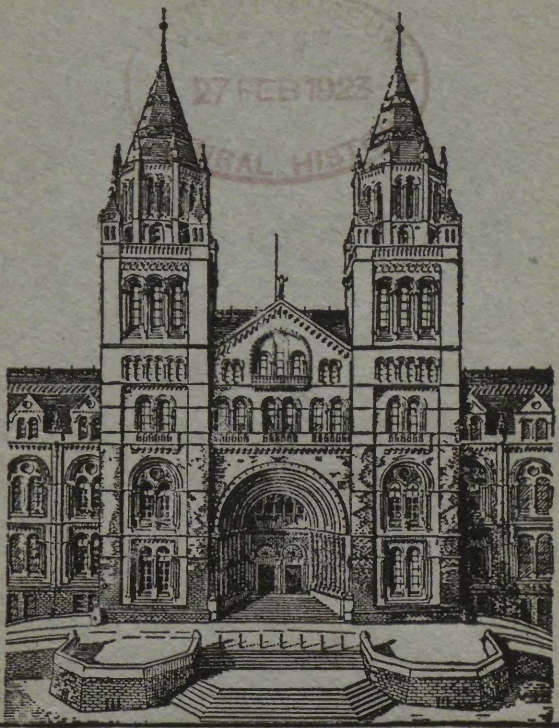


British Museum (Natural History)



EXOTIC BUTTERFLIES

SERIES No. 1

5 Cards in Colour

Set E 6

Ninepence
One Shilling



EXOTIC BUTTERFLIES

Troides paradicens

²/₃ natural size

BRITISH MUSEUM (NATURAL HISTORY)

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EXOTIC BUTTERFLIES

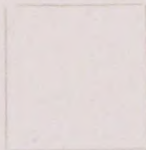
Hebomoia glaucippe ♂/♀ natural size

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EXOTIC BUTTERFLIES

Papilio zueiskei

$\frac{4}{5}$ natural size

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EXOTIC BUTTERFLIES

Heliconius doris $\frac{2}{3}$ natural size

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EXOTIC BUTTERFLIES

Morpho cephyritus

Natural size

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BRITISH MUSEUM (NATURAL HISTORY)

EXOTIC BUTTERFLIES

Such an immense number of the Butterflies found in the tropical countries exhibit brilliant colours or strange adaptations of form that no such series as this can give any adequate idea of them. The known species number approximately twenty thousand, and many more, no doubt, remain to be discovered. The hot, moist regions of the tropics are the most productive of species, especially the more open tracts, but the deserts and the densest jungle also produce their share. The most brilliant colours seem generally to occur in species living in the wettest regions ; and in many species, having a wide range under varying climatic conditions, a considerable difference in the brilliance of coloration can be distinguished between specimens occurring in the wet and dry zones respectively, and also between the forms of the same species flying in the same area in the different (wet and dry) seasons.

The differences which serve to separate the Lepidoptera in this country into two main divisions, the Butterflies and the Moths, do not hold good when applied to the foreign species. Those Families which we call Butterflies, excluding the Hesperidae or Skippers, form merely one of several similar large groups into which the Order can conveniently be divided. The Hesperidae are best regarded as such another group, and not closely related to the true Butterflies.

E 46

Troides paradiseus.

This magnificent Swallow-tail Butterfly was first obtained by Kubary in the Finisterre Mountains of New Guinea about the year

1892. Their hindwings are most remarkable for their long, narrow tails and very small size; whilst against the body, on the underside, they bear a thick fringe of very long buff-coloured hairs, a sexual character of secondary importance. The female is utterly different from the male. She is very much larger, has normal hindwings, and is black, marked with white and a little yellow. When in flight, the male is said to hold the hindwings down against the body, so that the forewings only are actually used for flying, and the transparent golden areas appear very much more brilliant than in dead specimens. More recently a second species belonging to this group of so-called Bird-winged Butterflies has been discovered (*T. meridionalis*) with even smaller hindwings than in *paradisea*; and the life history of *paradisea* has been worked out. It is often said that these high-flying giant butterflies are collected with a gun; they have been brought down at different times by this means, but it seems only to have been an emergency method as a rule.

E 47

Papilio weiskei.

This species belongs to a section of the genus *Papilio* generally called the Kite Swallow-tails on account of the way they fly. The majority of them are easily recognisable by means of the transparent or semi-transparent areas on their wings. These areas are brought about by the reduction of the scales, with which they are normally covered, to the condition of hairs. The actual membrane of the wing is often coloured, as in the species depicted, in which there are, for the greater part, no scales on the upperside in the green, blue and mauve areas. The vast majority of Butterflies do not have the actual membrane of the wing coloured in any way, all their colours being due to the overlying layers of scales. Most of the species in this section are also characterised by the possession of very long hindwing tails, but not all of them, as some, which are considered to be mimetic of species belonging to widely different, and tailless groups, are quite devoid of them. *P. weiskei* occurs comparatively commonly in the mountains of British New Guinea; it is shown here on account of its most unusual and attractive coloration. Nothing appears to be known of its life history.

Of this species, a kind of Giant Orange Tip, belonging to the *Pieridae*, or Whites, Wallace says : "These large and handsome butterflies frequent the skirts of forest districts ; the males often settle on the ground in company with many Swallow-tails and Whites ; when thus resting the wings are erect ; they are at once distinguishable from all around them by the peculiar attitude they assume, the upper wings being depressed between the lower pair, so that their basal halves are completely hidden by them ; probably as a consequence of this we find that the basal half of the upper wings is always pale in colour on the underside, and devoid of the characteristic markings of the exposed portions. The females fly rather low, in woods and thickets, and seldom come out into the open grounds, and are therefore less frequently captured." It is a common species throughout tropical Asia and the Malayan region, and, though not very variable, has produced a number of easily recognisable local races often regarded as distinct species. The caterpillar, which in many ways resembles that of our British Orange Tip, feeds on *Capparis*.

The subfamily (*Heliconiinae*) of the *Nymphalidae* to which this species belongs is confined to, and highly characteristic of the hottest and most humid regions of Central and South America. The species are abundant in individuals wherever they occur, flourishing even in places incessantly haunted by swarms of insect-eating birds ; and are remarkable for their extraordinary variability. All the specimens figured on this card are generally considered to be forms of a single species. Both the green and the blue forms have been bred from batches of eggs laid by one single female ; and as long ago as 1860, Bates, on the Amazon, bred both the red and the blue form from one single cluster of caterpillars. In most parts of its range the species occurs in all three (blue, green and red) forms ; but in certain areas, as in Peru, the blue form is by far the commonest, whilst in Panama the green form appears to predominate. Forms intermediate between the red and the blue, and the red and the green are not uncommon, but they are not known to occur between the blue and the green forms. This is perhaps partly explained by the fact the blue and the green streaks always occur in the same places on the wings *i.e.* between the veins, whereas the red streaks only occur actually along the veins.

The species of this tropical American genus have long been noted for the extraordinary brilliance of their coloration ; it is said of some of them that they can be seen flashing in the sun fully a quarter of a mile away. Not all of them have the vivid blue of this species however. Some are grey-green or brown, one is almost white, and the females rarely have any of the brilliance of the males. The blue colour does not fade, for it is mainly due to the effect upon light of the structure of the scales which cover the wings. Several of the species are largely utilised in making pendants and brooches ; but not this one, as it is exceedingly rare and has only been met with on two occasions, in a particularly swampy and unhealthy part of Peru. The female is marked like the male, but is a delicate semi-transparent green, without any metallic colours. Nothing is known of its life history. Such caterpillars as are known in the genus live in nests on woodland trees and their creepers, and frequently attack one another. They are cylindrical, thicker in the middle, and bear two horn-like processes on the head, which are directed straight in front. The chrysalis is very stout and hangs free, suspended by the tail.

Set E 6

January, 1923.